



POLICY FOR MATHEMATICS

Reviewed: Autumn 2021

Review date: Autumn _____

Signed: _____ Headteacher

Signed: _____ Chair of G.B.R.A. committee

MATHEMATICS

Mathematics is a means of communicating using not only words but symbols. It is a universal language and our understanding of it should be a natural part of our experiences and development. A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.

Aims

It is our intention to

- build upon the mathematical knowledge already acquired before our children start school
- to help our children acquire a sound understanding of the basic mathematical skills and become fluent in them.
- to consolidate learning through practical skills
- to relate basic skills to problem solving and reasoning problems.
- to develop the power of logical reasoning
- to develop positive attitudes, confidence and enjoyment in mathematics
- to develop resilient learners

The mathematics curriculum will have –

Relevance

- children will be encouraged to draw upon everyday experiences
- tasks will be such that the ability of each child will be recognised in order to extend the most able, encourage the average ability child and support those with learning difficulties, thus ensuring relevant differentiation

Breadth

Every child should experience the whole range of mathematical concepts in line with the expectations of the National Curriculum, which is set out in six strands:

Number
Fractions
Algebra
Ratio & proportion
Measurement
Geometry
Statistics

Using and applying mathematics is integrated throughout.

Balance

Mathematics is not a subject in isolation, it is an integral part of the whole curriculum as follows:

Developing appropriate language	- English
Measurements, calculations	- Science
Grids, co-ordinates	- Geography
Dates, time, Roman Numerals	- History
Measurement, design	- Technology
Patterns	- Music
Directions, angles	- P.E.
Collect and classify data	- ICT

Time should be given to the understanding of mathematics through practical activities wherever appropriate and should encourage the ability to investigate and solve problems. Investigations are spontaneous and should be recognised and pursued at the time they occur.

A 'Maths Week' has been organised for the past six years at school, giving all children the opportunity to solve problems at their own level. Activities are planned throughout the week incorporating Maths into a range of subjects, for example:

- Maths art work
- A Maths QR code hunt
- A Maths treasure hunt
- A teachers Vs children quiz

Teaching and Organisation

In order to deliver the curriculum effectively the following types of organisation will be used

- whole class teaching
- grouping according to interest/ability
- one to one

Class teachers work flexible and are continually assessing and intervening throughout lessons to support all children.

Classroom assistants can be used to work in small group situations.

Differentiation and progression

All children will follow and be taught the programmes of study from the National Curriculum 2014.

Children should have opportunities for individual, group and class work. We use White Rose planning and assessments from Y1 - Y6. Teachers use the planning from here and tasks and resources to suit their children.

Arithmetic:

Arithmetic and securing written methods of calculation is a key part of the Maths curriculum. Every day, as part of our Maths lessons, the children complete '5 a day'. This gives them the opportunity to practice those skills and operations.

This takes place each morning from Y1 - Y6.

Assessment, recording and reporting.

The assessment, recording and reporting process will follow the whole school policy.

Assessment

- Along with Captain Cook Primary, we developed an assessment system to suit the needs of our school.
- Both staff and children are confident when using the system. Each child has a tracking grid, which is found in the front of their exercise books.
- The grids are continually updated and used to inform next steps in learning.
- Children highlight a target they would like to focus on, and once it has been achieved, they are given a sticker in recognition of their efforts.
- The TA from the grids then form part of our termly judgements.

We have an Assessment leader who monitors and tracks data and shares findings with all staff.

Presentation of children's work

- children will be encouraged to take a pride in their work to present it in a neat and legible manner
- KS1 use a stamping system in which different stamps are used to remind them of expected presentation.
- children's work will be valued and shared via classroom, corridors, art display, good work assemblies and where the opportunity occurs through public presentation.

Children will present their work in a variety of ways

- graphic, diagrammatic representation
- model construction
- oral presentation

Marking & Feedback

Where possible, marking is carried out live in class with the child and instant feedback and intervention is put in place during the lesson in order for the child to make progress and access the lesson. When marking activities and tasks, C.O.W marking is used.

- C – Correct your work. The child works in green pen to correct any mistakes or misunderstandings from the previous less.
- O – Own it. The child has displayed a good understanding of the concept covered and is given a problem linked to the previous lesson to extend their understanding further.
- W – Work with me. The child has displayed limited understanding from the previous lesson and may need extra support from the class teacher or TA.

COW marking is used consistently across KS2 and was introduced in KS1 in September 2019.

Equal opportunities

The teaching of mathematics will be organised in such a way to encourage all pupils regardless of race or gender.

Special Needs

Children who are identified as requiring special needs provision in Mathematics will have an individual learning plan developed by the SENCO and the class-teacher.

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The more able and talented Co-ordinator will liaise with the Maths Leader and class teachers to ensure individuals' needs are met and that appropriate targets are set and reviewed regularly.

Teachers will be mindful of the extra needs of gifted and talented children and will differentiate questions and activities to allow for further progression and challenge. Please also refer to the school's Gifted and Talented Policy.

Resources

Each classroom is appropriately resourced. Additional resources are stored in cupboards and bookshelves in the corridors outside of the classrooms. Children should be encouraged to value and take care of all equipment.

There are a wealth of ICT resources within school to support and enhance the teaching of Maths. KS2 access 'Times table Rockstars' in school and at home to support their learning and a variety of Maths based apps are used. All teachers have access to Rising Stars Problem solving books. UKS2 also have Gareth Metcalfe resources for problem solving and challenging the higher ability. We also see the importance of understanding their times tables. In 2017, we purchased 'Maths Rockx' app. This is used daily in class (years 1-6), using modern pop songs involving times tables.

Parental involvement

Parents are encouraged to be active participants in their child's learning. We aim to provide an open door policy whereby parents can seek advice or support from any member of staff. We endeavour to communicate well through newsletters, topic leaflets, homework diaries, reading journals, reports, open days, parental workshops and the website. Parents are also invited into school during Maths week to visit their child's class and look at work they have been doing in Maths lessons. It gives the parents an opportunity to discuss methods the children use with their class teacher.

Homework

Homework is given through school to support work undertaken in class. Years 5 and 6 operate a homework club after school. Regularity and amount of homework differs throughout school and the age ranges with all staff endeavouring to give one piece of Maths homework per week. Homework in KS1 consolidates the work children have been doing in class.